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EXAMINER

SHELEHEDA, JAMES R

ART UNIT	PAPER NUMBER
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2623

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/630,971

Applicant(s)

PASKINS, ADRIAN CHARLES

Examiner

James Sheleheda

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 24-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 24-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 6, 9-11, 13 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander et al. (Alexander) (6,177,931) (of record) in view of Picco et al. (Picco) (6,029,045) (of record) and Danneels et al. (Danneels) (5,805,825). As to claim 1, while Alexander discloses a system (column 2, lines 1-21) for providing (Fig. 1) a plurality of sets of broadcast data service data (advertisements; Fig. 1; column 33, line 66-column 34, line 9) transmitted together with broadcast digital television data as part of a broadcast signal (column 34, lines 10-18) comprising:

a processor (controlling the system; column 5, lines 21-28) configured to extract all of the plurality of sets of the broadcast data service data available from the broadcast signal (column 34, lines 10-16);

a memory (RAM; column 33, lines 44-47 and column 34, lines 10-25) configured to store all of the current plurality of sets of the broadcast data service (column 33, lines 44-47 and column 34, lines 10-25 and column 27, lines 16-18), the broadcast data service data defining a plurality of audio/video data sets (data sets which make up individual advertisements; column 34, lines 10-16);

a controller (processor controlling the system; column 5, lines 21-28) responsive to a user initiated selection signal provided by an end user (user selection to activate the guide; column 3, lines 56-62) to cause the memory to output (outputting the guide onto the display; Fig. 1; column 3, lines 56-62 and column 33, line 66-column 34, line 9) a selected one of the plurality of digital audio/video data sets (column 33, line 66-column 34, line 9) simultaneously with continued receipt of the broadcast digital television data (wherein the broadcast television signals continues to be broadcast and received by the system; see PIP window in Fig. 1 and column 3, line 56-column 4, line 12) the selected one of the broadcast data service plurality of sets (the ad of greatest interest to the user; column 33, line 66-column 34, line 9); wherein

the selection signal being provided at any time during receipt of the broadcast digital television data (wherein a television guide may be opened at any time; column 3, lines 56-62 and column 6, line 65-column 7, line 1) and independently of the broadcast digital television data (wherein a user opening the guide is independent of the broadcast television program; column 3, lines 56-62 and column 6, line 65-column 7, line 1) and the controller is response at any time during receipt of the broadcast digital television data and independently of the broadcast digital television data to output said selected portions (Fig. 1; column 3, lines 56-65, column 6, line 65-column 7, line 1 and column 33, line 66-column 34, line 9),

he fails to specifically disclose the digital audio/video data being in non-real time, wherein the processor converts the digital audio/video data of the broadcast data

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service data into real time data and periodically extracting the data from a broadcast carousel.

In an analogous art, Picco discloses video distribution system (Fig. 3; column 5, lines 66-67 and column 6, lines 1-16) which will transmit local content with a digital television signal (Fig. 5; column 8, lines 56-67) wherein the local content is not transmitted in real-time (Fig. 6; column 8, lines 29-36 and column 9, lines 41-51) and wherein the processor will convert the local content into real time content for display (formatting the content for display; column 11, lines 49-54 and column 12, lines 24-30) for the typical benefit of providing a more efficient use of bandwidth by utilizing spare channel bandwidth to download additional content (column 9, lines 10-25).

Additionally, in an analogous art, Danneels discloses a broadcast system (column 3, lines 18-54) wherein data is segmented and periodically broadcast in a broadcast carousel (column 3, lines 18-54) to be extracted as needed by receivers (column 3, line 55-column 4, line 19) for the typical benefit of ensuring that data can be received by clients are off-line for part of the transmission (column 2, lines 27-41 and column 4, lines 1-19).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander's system to include the digital audio/video data being in non-real time and wherein the processor converts the digital audio/video data of the broadcast data service data into real time data, as taught by Picco, for the typical benefit of providing a more efficient use of bandwidth by utilizing spare channel bandwidth to download additional content.

Additionally, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander and Picco's system to include periodically extracting the data from a broadcast carousel, as taught by Danneels, for the typical benefit of providing a more efficient use of bandwidth by utilizing spare channel bandwidth to download additional content.

As to claims 2 and 6, while the current combination of Alexander, Picco and Danneels disclose wherein the digital audio/video data of the plurality of sets of the broadcast data service data is received and stored off-line (wherein the advertisements are stored for later use instead of immediate display; see Alexander at column 33, lines 44-48 and column 34, lines 10-16), they fail to specifically disclose wherein the audio/video data is compressed and the processor decompresses the audio/video data using a predefined protocol.

The examiner takes official notice that it was notoriously well known in the art at the time of invention by applicant to compress digital signals for transmission and storage and then decompress them for use, which would inherently utilize some compression/decompression protocol, for the well known benefits provided by compression such as reducing both the bandwidth and storage needed to handle the data.

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander, Picco and Danneels's system to include wherein the audio/video data is compressed and the processor decompresses the

audio/video data using a predefined protocol to take advantage of the reduced bandwidth and storage requirements for a digital signal, as typically provided by compression.

As to claim 9, Alexander, Picco and Danneels disclose wherein the memory is a semiconductor memory (RAM; see Alexander at column 33, lines 44-48 and column 34, lines 10-16).

As to claim 10, Alexander, Picco and Danneels disclose a digital television receiver for providing the broadcast signal to the processor (wherein a digital television receiver is inherently present to receive the television programming; see Alexander at column 3, lines 21-62, column 5, lines 21-53 and column 6, line 64-column 7, line 17).

As to claim 11, Alexander, Picco and Danneels disclose wherein the system is a single integral unit (see Alexander column 5, lines 21-53).

As to claim 13, Alexander, Picco and Danneels disclose wherein the digital television receiver selectively provides digital television data for display (selected by the user; see Alexander at column 7, lines 34-45) and wherein the processor extracts the sets of the plurality of sets of the broadcast data service data irrespective of that display (wherein the downloading and storing of ads is unrelated to the currently displayed video or channel; see Alexander at column 33, lines 44-48 and column 34, lines 10-16).

As to claims 25 and 27, while Alexander, Picco and Danneels disclose wherein the digital television data is converted into real time audio/video data and transmitted (wherein television content arranged and transmitted for real-time receipt and viewing; see Alexander at column 34, lines 10-18), they fail to specifically disclose wherein the digital television data is transmitted in packets generated according to an MPEG standard, such as MPEG2.

The examiner takes official notice that it was notoriously well known in the art at the time of invention by applicant to utilize an MPEG standard, such as MPEG2, to packetize data for transmission and storage for the typical benefits of utilizing a well established standard means for video compression which reduces both the bandwidth and storage needed to handle the data.

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander, Picco and Danneels' system to include wherein the digital television data is transmitted in packets generated according to an MPEG standard, such as MPEG2, for the typical benefits of utilizing a well established standard means for video compression which reduces both the bandwidth and storage needed to handle the data.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander, Picco and Danneels as applied to claim 2 above, and further in view of Hölzle et al. (Hölzle) (5,970,249) (of record).

As to claim 3, while Alexander, Picco and Danneels, as addressed above, disclose wherein the processor processes the plurality of sets of the broadcast data service data, they fail to specifically disclose wherein the data is processed at times of low usage.

In an analogous art, Hölzle discloses a computing system (Fig. 5) wherein program compiling is to be performed is delayed (column 4, lines 1-8) until a period of inactivity by the processor (or low usage; column 4, lines 9-23) for the benefit of more efficiently utilizing system resources (column 4, lines 19-23).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander, Picco and Danneels' system to include wherein the data is processed at time of low usage, as taught by Hölzle, to provide the common benefit of ensuring that a computer system runs as efficiently as possible.

4. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander, Picco and Danneels as applied to claim 1 above, and further in view of Winston (6,434,653) (of record).

As to claims 4 and 5, while Alexander, Picco and Danneels disclose wherein the processor processes the data, they fail to specifically disclose wherein the processor operates in a batch processing method with data loaded locally from the memory in small chunks.

In an analogous art, Winston discloses a computer system (Fig. 1; 100) containing a processor (101 or 104) with an internal cache (102 or 105; column 3, lines

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18-19) wherein data from a local memory (113) is loaded into the caches for processing (column 3, lines 18-23) for the benefit of providing the processor with faster access to memory (column 3, lines 21-23).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander, Picco and Danneels' system to include wherein the processor operates in a batch processing method with data loaded locally from the memory in small chunks, as taught by Winston, for the benefit of providing the processor with faster access to memory by loading data into caches local to the processor.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander, Picco and Danneels as applied to claim 1 above, and further in view of Russo (5,619,247) (of record).

As to claim 7, while the current combination of Alexander, Picco and Danneels disclose wherein the digital audio/video data of the plurality of sets of the broadcast data service data is received and stored off-line (wherein the advertisements are stored for later use instead of immediate display; see Alexander at column 33, lines 44-48 and column 34, lines 10-16), they fail to specifically disclose wherein the audio/video data is compressed and the processor decompresses the audio/video data using a downloaded protocol.

The examiner takes official notice that it was notoriously well known in the art at the time of invention by applicant to compress digital signals for transmission and

storage and then decompress them for use, which would inherently utilize some compression/decompression protocol, for the well known benefits provided by compression such as reducing both the bandwidth and storage needed to handle the data.

Additionally, in an analogous art, Russo discloses a video distribution system (Fig. 1; column 3, lines 40-64) wherein a proprietary compression algorithm is utilized (column 7, lines 66-67 and column 8, lines 1-6) which is programmable with downloaded signals (column 8, lines 6-10) for the typical benefits for providing additional security (column 8, lines 2-10).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander, Picco and Danneels' system to include wherein the audio/video data is compressed and the processor decompresses the audio/video data to take advantage of the reduced bandwidth and storage requirements for a digital signal, as typically provided by compression.

Additionally, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to further modify Alexander, Picco and Danneels' system to include a downloaded protocol, as taught by Russo, for the typical benefits of providing additional security to distributed contents.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander, Picco and Danneels as applied to claim 1 above, and further in view of Kostreski et al. (Kostreski) (5,729,549) (of record).

As to claim 8, while Alexander, Picco and Danneels discloses wherein the broadcast data service data is received and processed offline (wherein it is received and stored for later use; see Alexander at column 33, lines 44-48 and column 34, lines 10-16), they fail to specifically disclose wherein the processor conducts decryption of the data using a key.

In an analogous art, Kostreski discloses a system for receiving a digital broadcast channel (Fig. 8; column 25, lines 15-22) containing video, audio and data packets (column 25, lines 22-26) wherein the a decryption key is used to decrypt the received packets (column 25, lines 26-35) for the benefit of only allowing access to programming to authorized users (column 25, lines 26-31).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander, Picco and Danneels' system to include wherein the processor conducts decryption of the data using a key, as taught by Kostreski, for the benefit of enabling cable providers to protect their programming by preventing access by unauthorized users.

7. Claims 12, 24, 26, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander, Picco and Danneels and further in view of Trovato (6,701,526) (of record).

As to claim 12, while Alexander, Picco and Danneels discloses a memory, they fail to specifically disclose wherein the memory is separate from the digital television receiver and linked by means of a network connection.

In an analogous art, Trovato discloses a cable television receiver (Fig. 2; column 4, lines 29-35) for receiving and extracting data (column 3, lines 66-67 and column 4, lines 1-5) and transmitting the extracted data over an IEEE 1394 connection to an external device (column 10, lines 42-51) for storage (column 10, lines 49-51) for providing the typical benefit of a more flexible system utilizing a portable and modular storage device.

It would have obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander, Picco and Danneels' system to include wherein the memory is separate from the digital television receiver and linked by means of a network connection, as taught by Trovato, for the typical benefit of providing a cable user with a portable and modular storage device with can be easily moved and replaced.

As to claim 24, Alexander, Picco, Danneels and Trovato disclose wherein the network connection is an IEEE 1394 interface (see Trovato at column 10, lines 42-51).

As to claims 26, 28 and 29, while Alexander, Picco and Danneels disclose wherein at least some of the sets of the plurality of sets of the broadcast data service data are transmitted in non-real time and the broadcast digital television data are transmitted according to a protocol (as indicated in claims 1 and 25 above), they fail to specifically disclose wherein at least some of the data is transmitted according to an alternative protocol.

In an analogous art, Trovato discloses a cable television receiver (Fig. 2; column 4, lines 29-35) for receiving and extracting data (column 3, lines 66-67 and column 4, lines 1-5) and transmitting the extracted data in an alternative protocol (over an IEEE 1394 connection to an external device; column 10, lines 42-51) for storage (column 10, lines 49-51) for providing the typical benefit of a more flexible system utilizing a portable and modular storage device.

It would have obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander, Picco and Danneels' system to include wherein at least some of the data is transmitted according to an alternative protocol, as taught by Trovato, for the typical benefit of providing a cable user with a means to connect to a portable and modular storage device with can be easily moved and replaced.

8. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander, Picco and Danneels as applied to claim 1 above, and further in view of Inoue et al. (Inoue) (US2002/0016963A1) (of record).

As to claim 14, while Alexander, Picco and Danneels disclose extracting and storing sets of the plurality of sets, they fail to specifically disclose wherein the controller is configured to identify corresponding extracted and stored sets of the plurality of sets and replaces sets in the memory with respective sets extracted from the broadcast signal.

In an analogous art, Inoue discloses an information receiving apparatus (Fig. 14; 100; paragraph 195) for receiving additional information transmitted with broadcast

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video (paragraph 75) wherein a controller (input and output control unit, 16) identifies if newly received information is an update of previously stored information (paragraph 200, lines 1-9 and lines 18-40) and replaces the previously stored portions with the newly received update (paragraph 200, lines 27-40) for the typical benefit of ensuring a user has the most up to date information available (paragraph 203).

It would have obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander, Picco and Danneels' system to include wherein the controller is configured to identify corresponding extracted and stored sets of the plurality of sets and replaces sets in the memory with respective sets extracted from the broadcast signal, as taught by Inoue, for the common benefit of providing the most recent broadcast data available to cable television viewers.

As to claim 15, Alexander, Picco, Danneels and Inoue disclose wherein, if periodically the broadcast signal includes all of the plurality of sets of the broadcast data service (see Inoue at paragraph 202, lines 1-5), the controller can store all of the received plurality of sets in the memory (see Inoue at paragraph 202, lines 1-5).

As to claim 16, while Alexander, Picco, Danneels and Inoue, as applied above, disclose wherein the controller can obtain and store in memory all of the sets of the plurality of sets of the broadcast data service (see Inoue at paragraph 202, lines 1-5), they fail to specifically disclose wherein the controller accesses an additional data channel.

Picco further discloses a television set top box (Fig. 8, 120) wherein private data and local content are downloaded (column 9, lines 31-39) and stored for use at a later time (column 9, lines 40-48) over a separate channel from the broadcast television channel (column 9, lines 31-39) for the benefit of providing content to a user on demand (column 9, lines 58-60).

It would have obvious to one of ordinary skill in the art at the time of invention by applicant to further modify Alexander, Picco, Danneels and Inoue's system to include wherein the controller accesses an additional data channel, as further taught by Picco, for the common benefit of enabling a cable television provider to quickly deliver content to a user as it's needed.

Response to Arguments

9. Applicant's arguments with respect to claims 1-16 and 24-29 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

Certificate of Mailing

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Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sheleheda whose telephone number is (571) 272-7357. The examiner can normally be reached on 9:00-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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